

Work Order ID 47305

July 1, 2009 3:17:54 PM



Page 1

Item ID: D3391-021

Accept



Setup Start



Revision ID: H

Stop



Item Name: Fwd Tube Assembly

Start Date: 07/15/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/03/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3391	Rev H

100		0.00							
	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	Cut extrusion to 46.52 +0.010 -0.020								



110		0.00							
	BENDING MACHINE - SKIDTUBES								
CNC Bend 1	Memo	0.00							
CNC Delta 100 Bender	Bend as per Dwg D3391 Using Bend Prog 3391021								



120		0.00							
	QC5- Inspect part completeness to step on W/O								
QC	Memo	0.00							
Quality Control									



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Start Date: 07/15/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/03/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 HAAS 1 HAAS CNC vertical machine #1	HAAS CNC VERTICAL MACHINING #1 Memo 1-Machine as per Folio FA590 Rev. ____ & Dwg D3391 Rev. ____ <input type="checkbox"/> Identify as <input checked="" type="checkbox"/> D3391-1 <input type="checkbox"/> 2-Deburr	0.00 0.00							
140 QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00							
150 Mill Conv Conventional Milling Machine	CONVENTIONAL MILLING MACHINE Memo Drill X1 Aft cap as per Dwg D3391 .1875" dia	0.00 0.00							

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Item Name: Fwd Tube Assembly

Start Date: 07/15/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/03/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

170

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

180

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Drill float bag holes as per Dwg D3391 using DT8798(Do not open tow cap holes to finish size) (ONLY DRILL HOLES MARKED "A") 2-Drill Remaining two holes for tow cap using DT 8819 Locating off of .1875" holes drilled in previous step 3-Open tow cap hole

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Item ID: D3391-021

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Stop



Item Name: Fwd Tube Assembly

Start Date: 07/15/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/03/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							
200 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00							
210 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							

Work Order ID 47305



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Stop



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Start Date: 07/15/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/03/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220 Skidtubes	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1-instal spacers as per dwg D3391 A/R Magnabond 6398 batch: _____ exp. date: _____ cure time 12hrs. as per <input checked="" type="checkbox"/> QSI015 2- grind crossbolt flush 3-back drill crossbolt if necessary								
230 QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo	0.00							
240 Powdercoat	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
Powder Coating	Memo	0.00							
	START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____								

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Revision ID: H

Stop



Item Name: Fwd Tube Assembly

Start Date: 07/15/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/03/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

250

QC3- Inspect Part Finish

0.00

09-07-9

0

PK



QC

Memo

0.00

Quality Control

260

Identify as per dwg & Stock Location:

0.00

09/09/02

1

0

AD



Packaging

Memo

0.00

Packaging

270

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

**** install D3591-1 spacer as per DS19364 ****

✓

Work Order ID 47305

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Accept



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Stop



Item Name: Fwd Tube Assembly

Start Date: 07/15/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/03/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

280

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/09/02 *[Signature]*
PL 09-9-2

Picklist Print

July 1, 2009 3:17:53 PM

Page 1/3

Work Order ID: 47305

Parent Item: D3391-021RevH

Parent Item Name: Fwd Tube Assembly

Comments:

Start Date: 07/15/2009

Required Date: 08/03/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
* AELS-1032-225 INSERT	AL54	Purchased	No	m110768		100	Each	0.0000	10.0000			
* AELS-1032-130 INSERT	AL54	Purchased	No	m110511		260	Each	0.0000	2.0000			
* AN3C4A BOLT		Purchased	No			260	Each	324.0000	10.0000			

Warehouse Loc Qty Loc Code
Location

Main Warehouse
ST

UMD 09/07/09

324

324

AN960C10L

Purchased

No

12082

260

Each

5,096.000

10.0000

washer

Warehouse Loc Qty Loc Code
Location

Main Warehouse
ST

5096

103585

100

12116

4996

UMD 09/07/09

Picklist Print

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Page 2

Work Order ID: 47305

Parent Item: D3391-021RevH

Parent Item Name: Fwd Tube Assembly

Comments:

Start Date: 07/15/2009

Required Date: 08/03/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3401-041RevB

Manufactured

No

260

Each

28.0000

1.0000



Tow Cap Assembly

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

28

36216

1

41931

11

46029

16

D3564-13RevD

Manufactured

No

260

Each

23.0000

1.0000



Wearshoe

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

23

45409

3

46495

10

47867

10

MD 09/07/09

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Shop Packet Print

Page 2

Picklist Print

July 1, 2009 3:17:53 PM

Work Order ID: 47305

Parent Item: D3391-021RevH

Parent Item Name: Fwd Tube Assembly


Comments:

Start Date: 07/15/2009

Required Date: 08/03/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3566-13RevC		Manufactured	No			260	Each	34.0000	1.0000			
<div style="display: flex; justify-content: space-between;"> <div>  <p>Gasket</p> </div> <div> <p><u>Warehouse</u></p> <p><u>Location</u></p> <p>Main Warehouse</p> <p>ST</p> <p>45717</p> <p>46889</p> <p>47435</p> <p>48166</p> </div> <div> <p><u>Loc Qty</u></p> <p>34</p> <p>1</p> <p>7</p> <p>8</p> <p>18</p> </div> <div> <p><u>Loc Code</u></p> <p>MD 09/07/09</p> </div> </div>												

D3672-1RevB

Manufactured No

260

Each

784.0000

4.0000

Phenolic Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

39275

42329

47628

784

19

143

622

MD 09/07/09

Date: Monday, 20/04/2009 1:54:22 PM
 User: Julie Dawson

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: FWD TUBE ASSEMBLY
Job Number	: 47305		
Estimate Number	: 10467		
P.O. Number	:	Part Number	: D3391021
This Issue	: 20/04/2009	S.O. No.	:
Prsht Rev.	: NC	Drawing Number	: D3391 REV H
First Issue	: / /	Project Number	: N/A
Previous Run	: 47033	Drawing Revision	: H
Written By	:	Material	:
Checked & Approved By	: <u>JD 09-04-20</u>	Due Date	: 05/05/2009
Comment	: Est. A 05.09.13 New issue KJ/JLM : Est. B 06.02.10 Dwg rev.D ecn 773 EC : Est. C 06.05.02 Added inspections EC : est D 07.03.13 rev F dwg EC : est E 07.11.07 revG dwg ecn1053P EC verified by: DD : Est Rev:f ECN 1056 07-11-12 DD verified by: EC : Est Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC : Est Rev:H 08-09-10 revH as per dwg DD verified by:EC : Est Rev J 09.02.02 added hardware EC verified by: DD		

Qty: 1 Um: Each

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
----------------	------------------------------	----------------------

1.0	D6013047	Skidtube Material
-----	----------	-------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

SKIDTUBE MAT'L

Pick:

Qty	Part Number	Description
1	D6013-047	Extrusion

Batch

26547

IT 09-04-21

2.0	SKIDTUBES 1	SKIDTUBESS RESOURCE 1
-----	-------------	-----------------------



Comment: LANDING GEAR RESOURCE 1

Cut extrusion to 46.52 +0.010 -0.020

IT 09-04-21

3.0	BENDING	BENDING MACHINE - SKIDTUBES
-----	---------	-----------------------------



Comment: Nc bender

Bend as per Dwg D3391 Using Bend Prog 3391021

IT 09-04-21

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 20/04/2009 1:54:22 PM
User: Julie Dawson

Process Sheet

Customer: *CU-DAR001 Dart Helicopters Services

Drawing Name: FWD TUBE ASSEMBLY

Job Number: 47305

Part Number: D3391021

Job Number:



Seq. #:

Machine Or Operation:

Description :

4.0

QC5

INSPECT WORK TO CURRENT STEP



$n = 7.100^\circ$
 $L = 13.5^\circ$



Comment: INSPECT WORK TO CURRENT STEP

Solb21

5.0

HAAS1

HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine as per Folio FA590 Rev. F & Dwg D3391 Rev. H
Identify as D3391-1

2-Deburr

M.A 09/04/26

6.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

M.A 09/04/26

7.0

MILLING CONV.

CONVENTIONAL MILLING MACHINE



Comment: CONVENTIONAL MILLING MACHINE

Drill X1 Aft cap as per Dwg D3391 .1875" dia

M.A 09/04/30

8.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

09/04/30

9.0

QC8

SECOND CHECK



Comment: SECOND CHECK

M.A 09/04/30

(1)

10.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Drill float bag holes as per Dwg D3391 using DT8798(Do not open tow cap holes to finish size)
(ONLY DRILL HOLES MARKED "A")

2-Drill Remaining two holes for tow cap using DT 8819 Locating off of .1875" holes drilled in previous step

3-Open tow cap holes to .208" as per Dwg D3391

4-Open Tow Ring hole to .640" as per Dwg D3391

5- open float bag holes 0.328" and counter sink as per dwg D3391

AWM 9-5-21

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: D3391-021 PAR #: _____ Fault Category: Machined Parts NCR: Yes No DQA: [Signature] Date: 09-05-09
 Resolution: Accepted Disposition: USE AS IS QA: N/C Closed: [Signature] Date: 09-05-10

NCR: 47305		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
9/4/27	50	Section "C-C" is off by 0.020" Dim 4.250 from end is 4.280 Tool offset / origin / opp. error.	PH QSI 042 09.04.20	Run opposite ^{side} to match Area is supported by fwd crossbars and saddle. Master Investigate structural change ACCEPTABLE	L.A 09/04/28	S 09/04/29	PH QSI 042 09.04.20	09/04/29

NOTE: Date & initial all entries

Date: Monday, 20/04/2009 1:54:22 PM
User: Julie Dawson

Process Sheet

Customer: * CU-DAR001 Dart Helicopters Services

Drawing Name: FWD TUBE ASSEMBLY

Job Number: 47305

Part Number: D3391021

Job Number: 

Seq. #: Machine Or Operation: Description :

6-Deburr & Scribe Batch number Inside aft end.

- ANN 9-5-21

7-Transfer drill D3391-021 with D3391-023

M 9-6-2

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8 05/06/02 (X)

12.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

M 9-6-3

13.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

D M 9-6-3

14.0

D36704200

SPACER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

SPACER

batch

B-456786 M 9-6-3

15.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-instal spacers as per dwg D3391

A/R Magnabond 6398 batch: M 111249

exp. date: 10-2-1

cure time 12hrs. as per QSI015

2- grind crossbolt flush

3-back drill crossbolt if necessary

M 9-6-5

16.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

10 05/06/05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 20/04/2009 1:54:22 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FWD TUBE ASSEMBLY

Job Number: 47305

Part Number: D3391021

Job Number:



Seq. #:

Machine Or Operation:

Description:

17.0

POWDER COATING

POWDER COATING



M111472



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

START TIME:

9:00am

OVEN TEMPERATURE:

320°C

FINISH TIME:

9:30am

all

09-07-01

18.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BF 09.07.09

19.0

D3401041

Tow Cap Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

* Tow Cap Assembly

B41931

UMD 09/07/09

20.0

D356413

Wearshoe



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

* Wearshoe

B47867

UMD 09/07/09

21.0

D356613

Gasket



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

* Gasket

B46089

UMD 09/07/09

22.0

D36721

Phenolic Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

* Phenolic Washer

M42309

UMD 09/07/09

23.0

AN3C4A

BOLT



Comment: Qty.: 10.0000 Each(s)/Unit Total: 10.0000 Each(s)

* BOLT

M112080

UMD 09/07/09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 20/04/2009 1:54:22 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FWD TUBE ASSEMBLY

Job Number: 47305

Part Number: D3391021

Job Number:



Seq. #:

Machine Or Operation:

Description :

24.0

AN960C10L

washer



Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)

~~*~~

washer

m 112116

umd 09/07/09

25.0

ALS41032130

Insert



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

~~*~~

INSERT

m 110511

umd 09/07/09

26.0

ALS41032225

Insert



Comment: Qty.: 10.0000 Each(s)/Unit Total : 10.0000 Each(s)

~~*~~

INSERT

m 110768

umd 09/07/09

27.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

28.0

SKIDTUBES 1

SKIDTUBESS RESOURCE 1



Comment: SKIDTUBESS RESOURCE 1

**** install D3591-1 spacer as per DSI9364 ****

sl

08-09-11 (X)

29.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



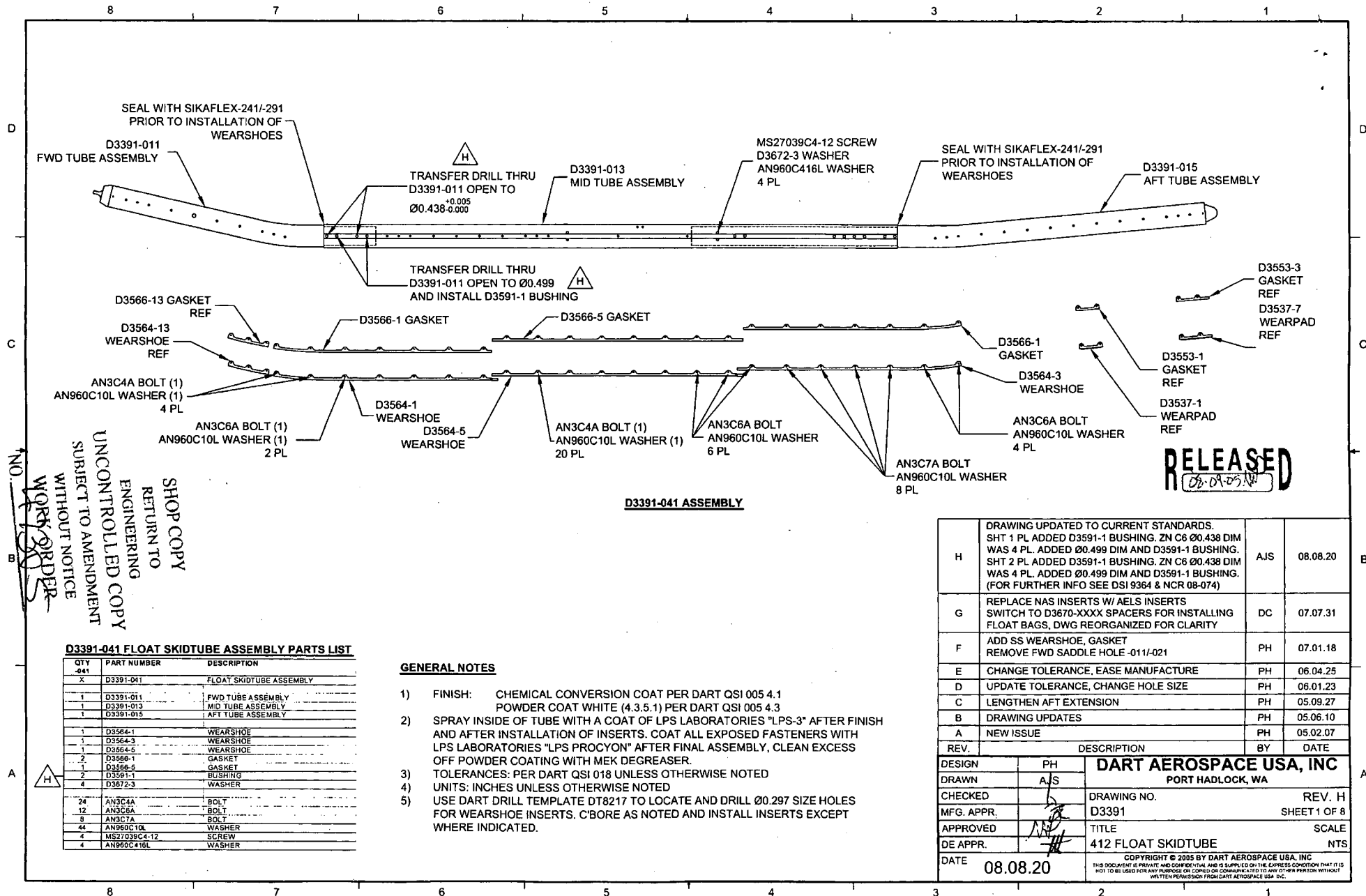
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

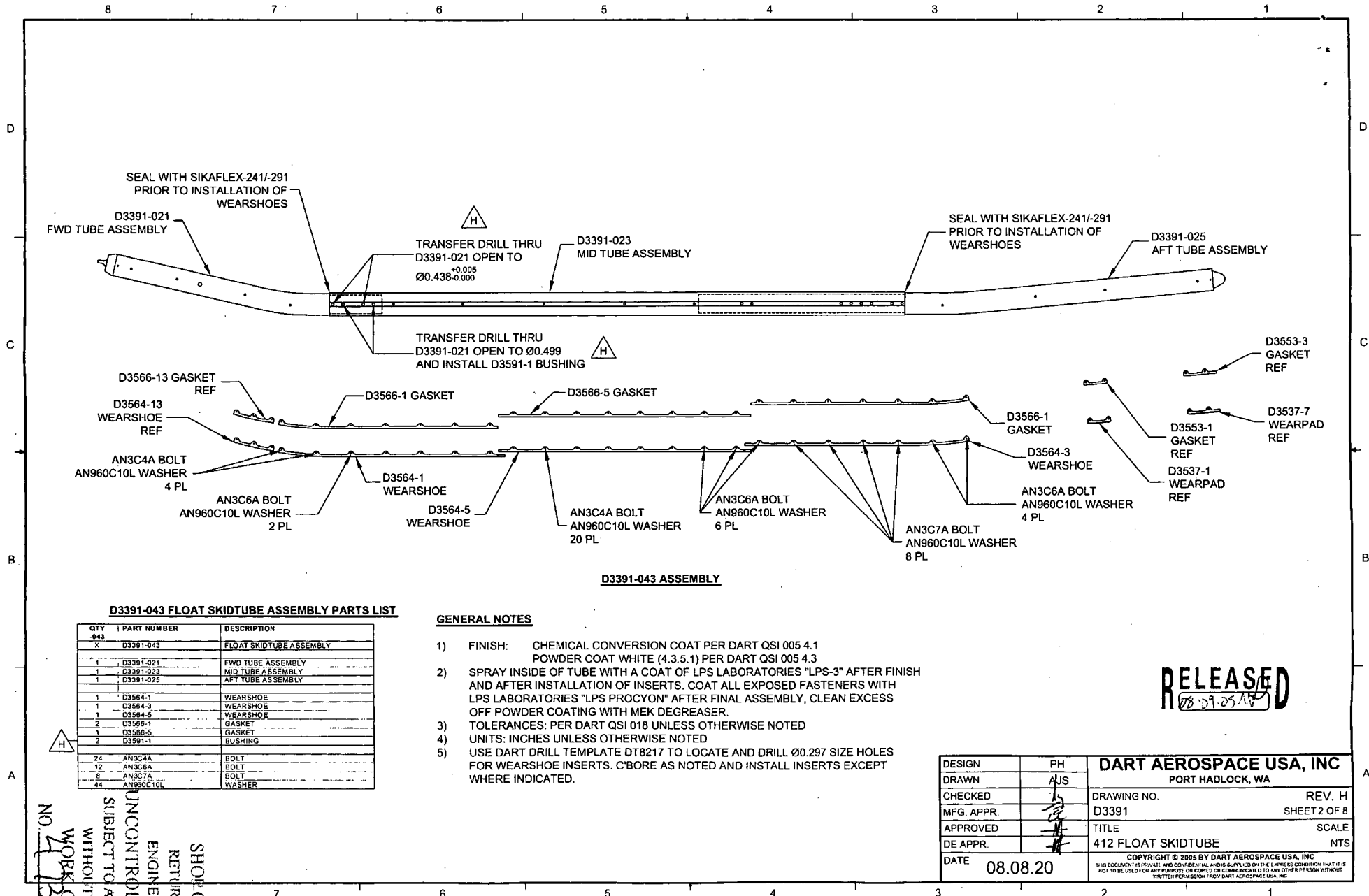
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries





D3391-043 ASSEMBLY

D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
1	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
1	D3566-1	GASKET
2	D3566-5	GASKET
2	D3591-1	BUSHING
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER

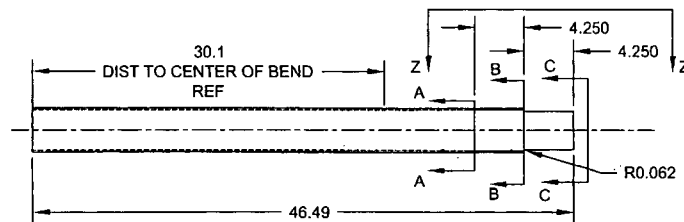
GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.

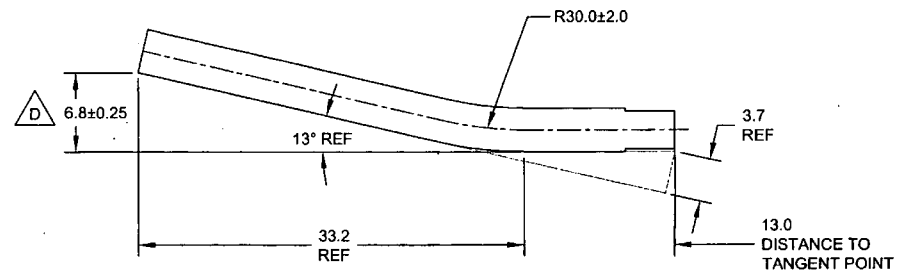
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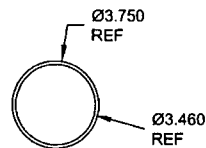
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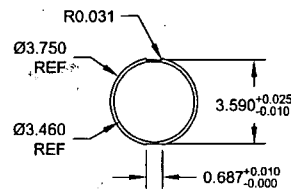
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



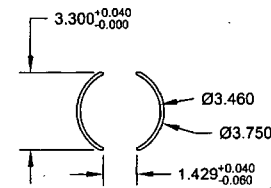
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



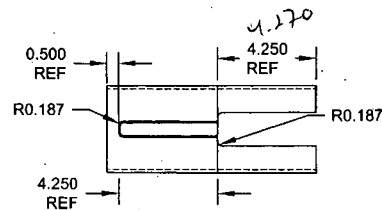
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SECTION B-B
SCALE 2X





SECTION C-C
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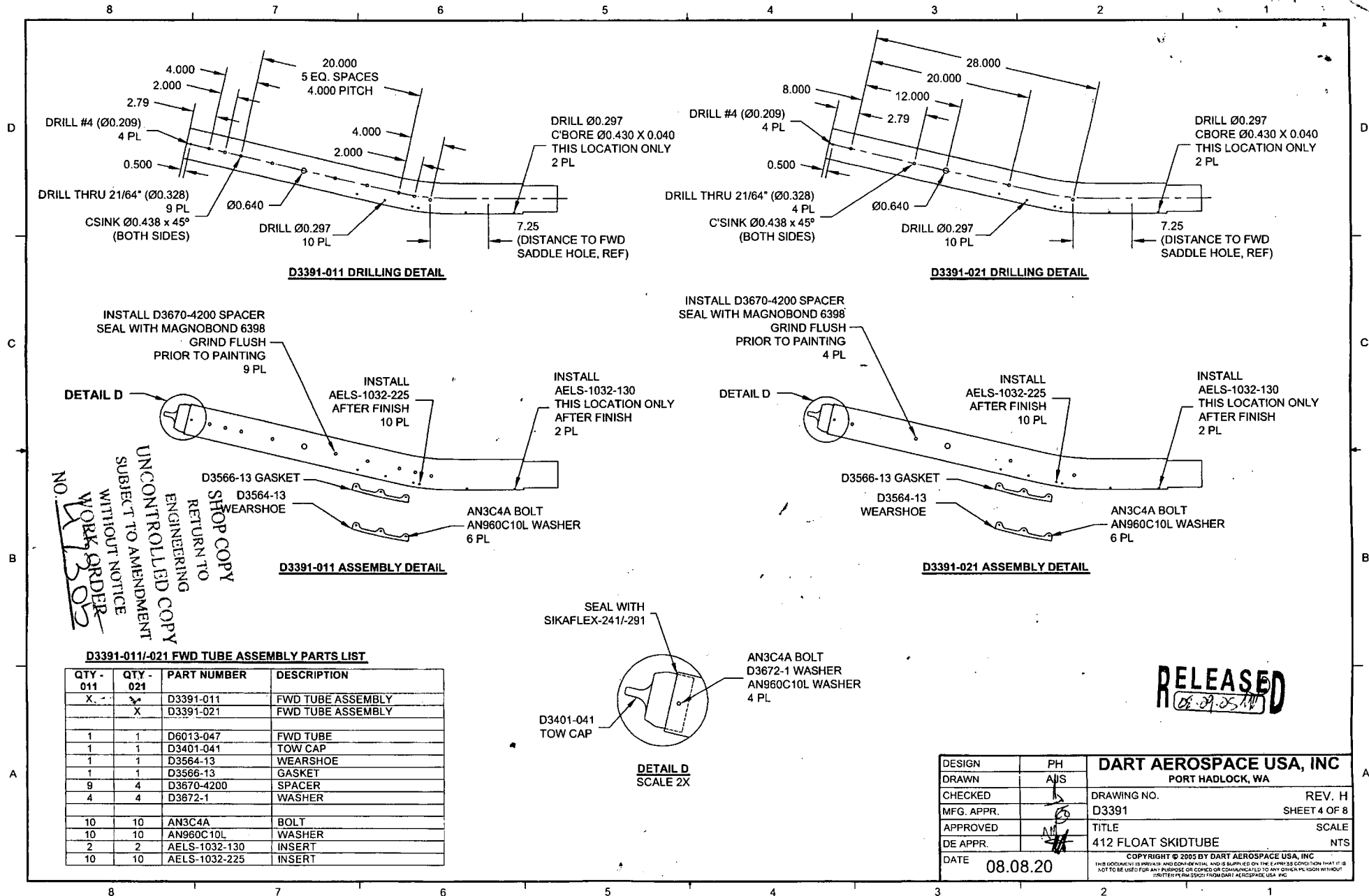


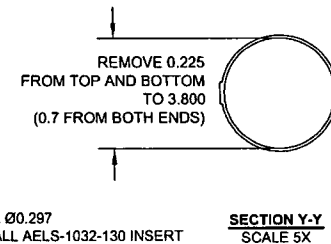
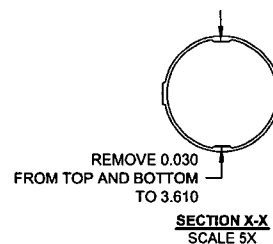
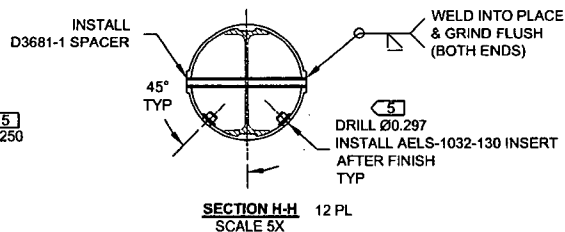
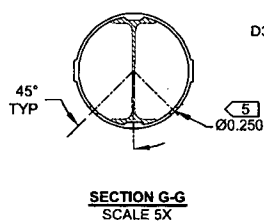
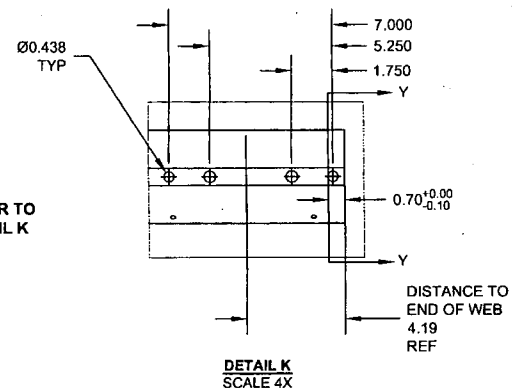
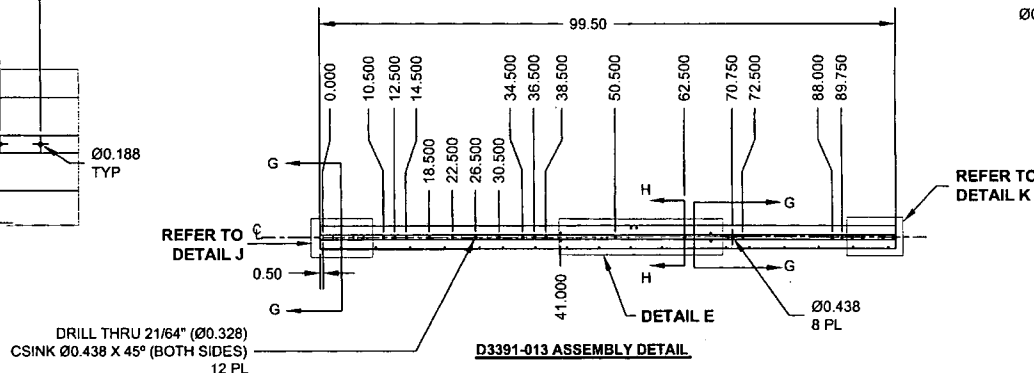
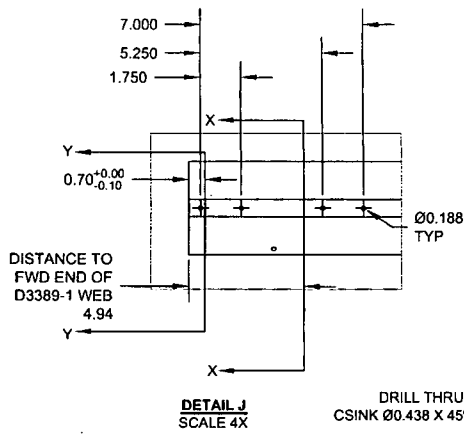
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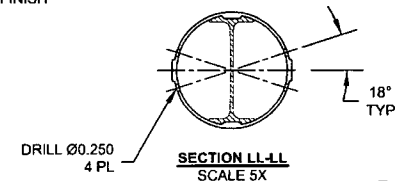
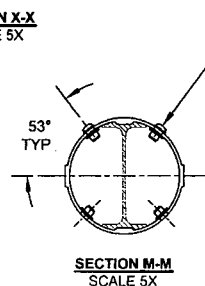
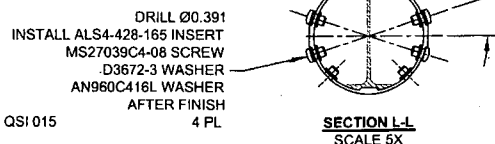
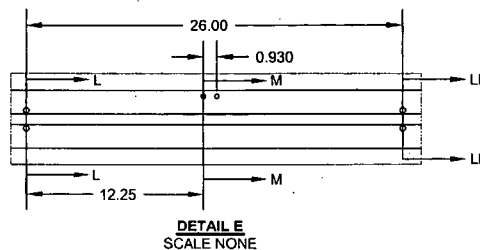
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D3391-013 MID TUBE ASSEMBLY PARTS LIST

QTY -013	PART NUMBER	DESCRIPTION
X	D3391-013	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
4	D3672-1	WASHER
4	D3672-3	WASHER
12	D3681-1	SPACER
24	AELS-1032-130	INSERT
4	ALS4-428-165	INSERT
4	AN960C10L	WASHER
4	AN960C416L	WASHER
4	MS27039C1-09	SCREW
4	MS27039C4-08	SCREW



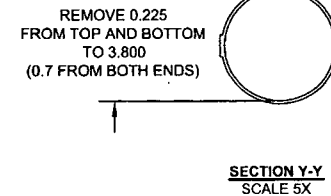
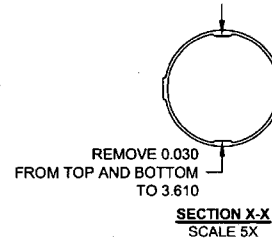
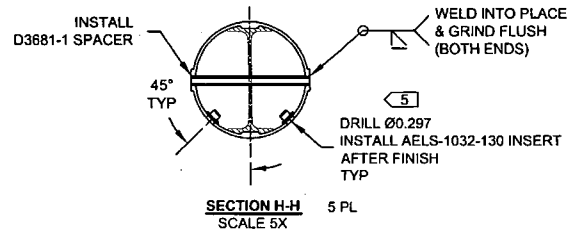
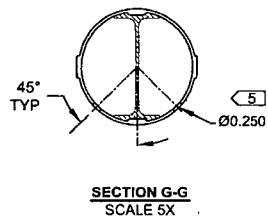
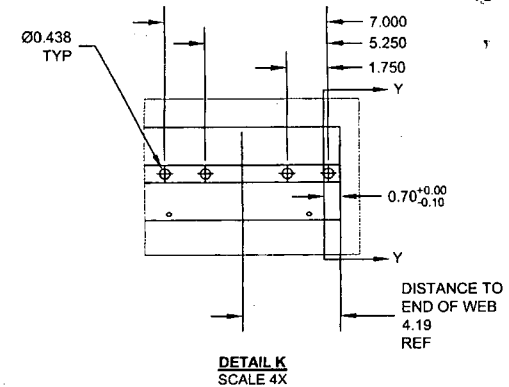
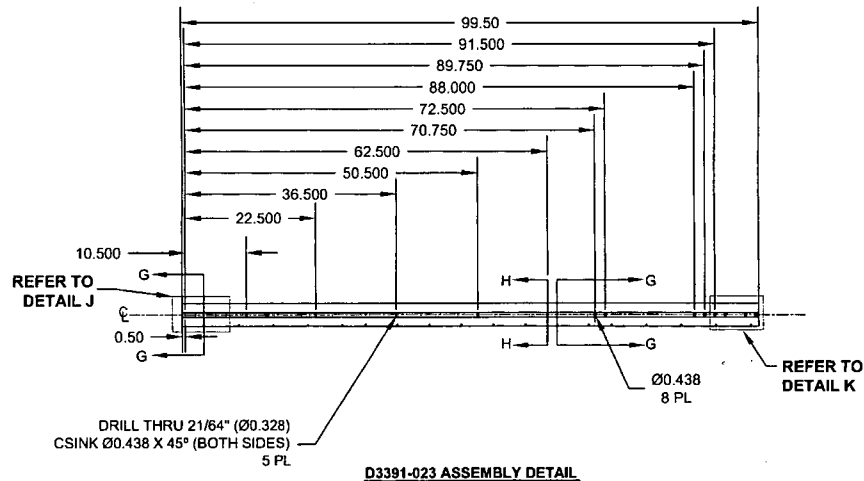
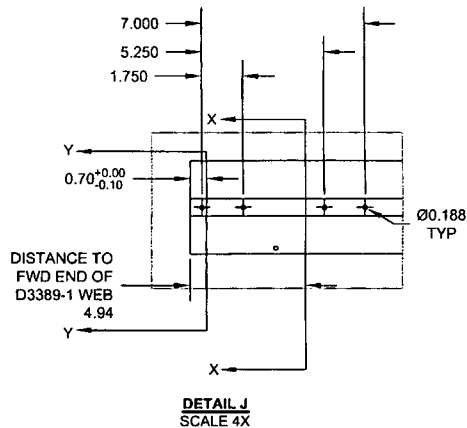
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D3391-013 MID TUBE ASSEMBLY
MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
WELDING: PER DART QSI 004

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D3391-023 MID TUBE ASSEMBLY PARTS LIST

QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

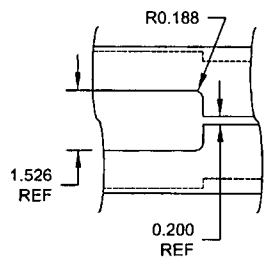
D3391-023 MID TUBE ASSEMBLY

- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- 3) WELDING: PER DART QSI 004

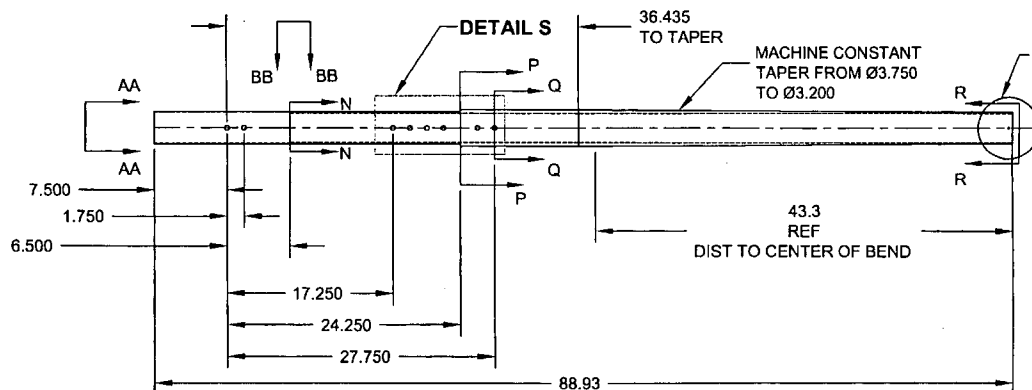
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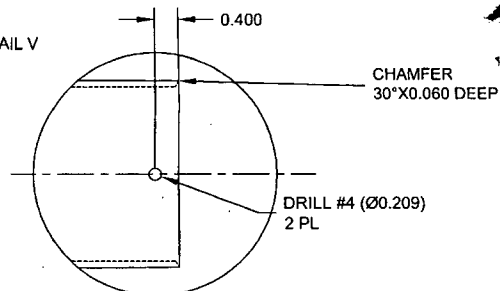
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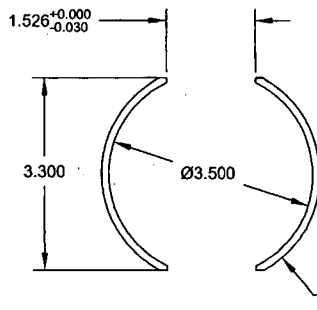
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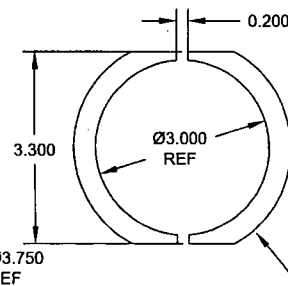
D3391-3 AFT DRILLING AND CUTTING DETAIL
(MAKE FROM D6014-090 SKIDTUBE MATERIAL)



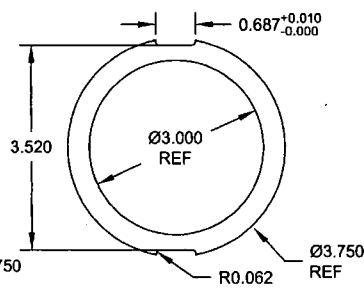
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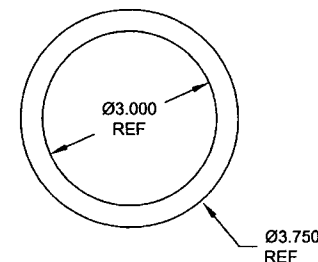
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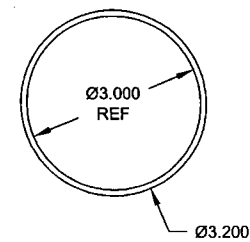
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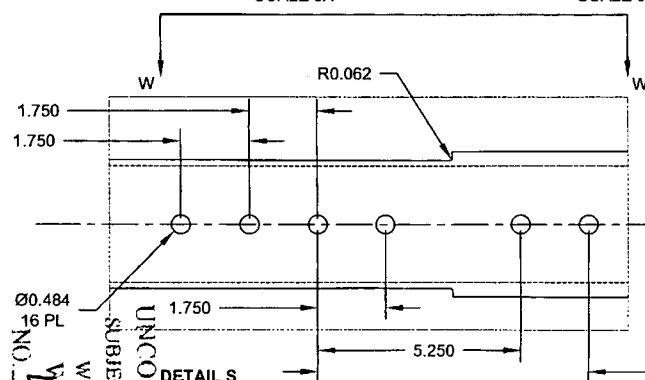
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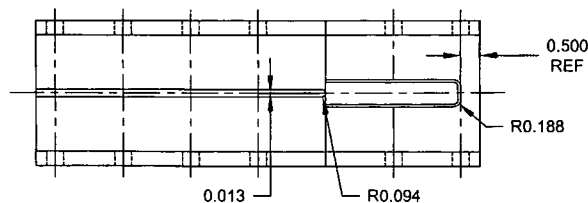
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SECTION R-R
SCALE 6X



DETAIL S
SCALE 4X

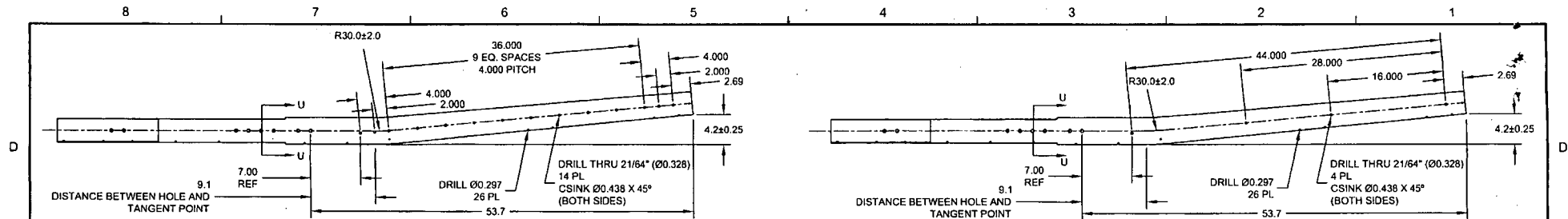


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SCALE 4X

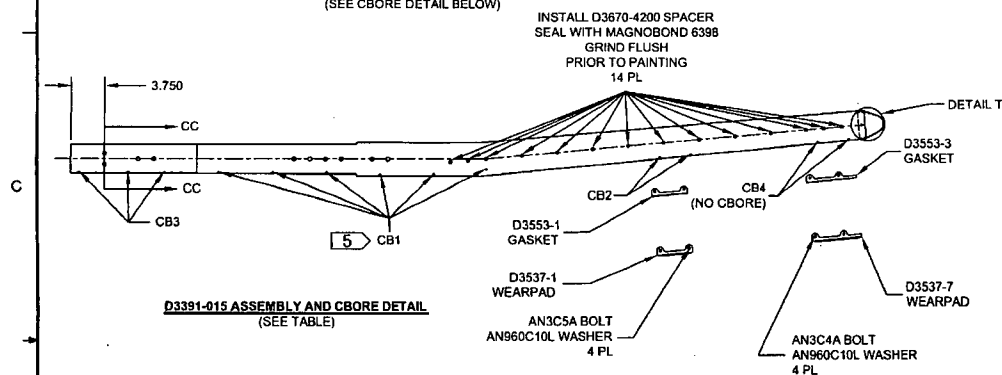
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D3391-015 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)



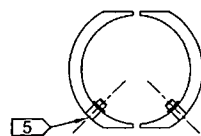
D3391-015 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)

D3391-015/-025 AFT TUBE ASSEMBLY PARTS LIST

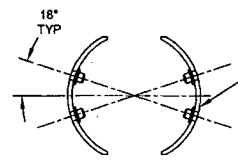
QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X	X	D3391-015	AFT TUBE ASSEMBLY
		D3391-025	AFT TUBE ASSEMBLY
1	1	D6014-090	AFT TUBE
1	1	D2846	AFT CAP
1	1	D3537-1	WEARPAD
1	1	D3537-7	WEARPAD
1	1	D3553-1	GASKET
1	1	D3553-3	GASKET
14	4	D3670-4200	SPACER
2	2	D3672-1	WASHER
14	14	AELS-1032-130	INSERT
12	12	AELS-1032-225	INSERT
4		ALS4-428-165	INSERT
6	6	AN3C4A	BOLT
4	4	AN3C5A	BOLT
10	10	AN960C10L	WASHER

CBORE HOLES MARKED CB1-CB4 AS FOLLOWS AND
INSTALL AELS-1032-XXX AFTER FINISH AS NOTED

HOLES MARKED	QTY D3391-015	QTY D3391-025	CBORE	P/N
CB1	12	12	Ø0.430 X 0.170	AELS-1032-225
CB2	4	4	Ø0.430 X 0.170	AELS-1032-130
CB3	6	6	Ø0.430 X 0.040	AELS-1032-130
CB4	4	4	NONE	AELS-1032-130

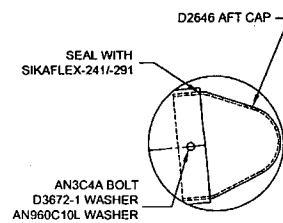


SECTION U-U
SCALE 3X



SECTION CC-CC
SCALE 3X

DRILL Ø0.391
CBORE Ø0.516 X 0.040 DEEP
INSTALL ALS4-428-165 INSERT
4 PL



DETAIL T
SCALE 4X

D3391-025 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)

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